

2.0 ENVIRONMENTAL IMPACT ANALYSIS

This section provides an analysis of the potential environmental impacts associated with the proposed amendment of the SCE Program. The analysis is organized by environmental issue area (e.g., aesthetics, agricultural resources, air quality, etc.). Each issue area begins with a checklist, which identifies criteria that have been used to assess the significance of each potential impact. The checklists used were developed by the State of California, and are provided as Appendix G of the State CEQA Guidelines. The checklists also indicate the conclusions made regarding the potential significance of each impact. Explanations of each conclusion are provided after the checklists. Setting descriptions are also provided to familiarize the reader with the existing site conditions. In addition, the potential for residual impacts (i.e., with the implementation of recommended mitigation measures) is assessed, and if necessary, any issues that are in need of further study (i.e., in an EIR) are identified.

Impact classifications used in the checklists are the following:

- **Potentially Significant Impact:** an impact that may be significant based on substantial evidence, and that requires further study in an EIR.
- **Insignificant Impact with Mitigation Incorporation:** an impact that is “Potentially Significant” but that can feasibly be mitigated to a “Insignificant Impact” with the incorporation of mitigation measures.
- **Insignificant Impact:** an impact that would not be significantly adverse.
- **No Impact:** applied when the project would not result in any impact to a specific issue area.

2.1 AESTHETICS

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
light or glare which would adversely affect day or nighttime views in the area?				

2.1.1 Setting

Mandalay Beach is located on the California coast between Ventura Harbor and Channel Islands Harbor. It is approximately 3 miles west of the city of Oxnard, and about a half mile north of Fifth Street. The Channel Islands Harbor is 3 miles south and the Ventura Marina is located 2.5 miles north. The site is on the coastal plain of the Ventura Basin, approximately 18 miles northwest of Point Mugu and 2 miles south of the mouth of the Santa Clara River. The Ventura River delta is located to the north and the barrier beaches at Point Mugu to the south, creating the Ventura Basin.

Mandalay Beach is characterized as an expansive sandy beach with a series of intact, low-lying, protective dunes on the inland side. Most of the area immediately surrounding the Reliant Energy Mandalay, L.L.C. Generating Station (REM) is part of Mandalay State Beach Park. McGrath Lake is located directly north of the REM facility. As the closest public roadway and/or parking area is one half mile away, the beach tends to be less frequented than other nearby beaches with easier public access. Two arterial roadways in the vicinity of the project site, West Fifth Street and Harbor Boulevard, are City Image Corridors as well as scenic routes, as identified by the 2020 General Plan of Oxnard. The Pacific Ocean is not generally visible from either of these roads because of an area of dense vegetation including shrubs, tall grasses, and sand dunes between the roadways and the water.

2.1.2 Impact Discussion

The State CEQA Guidelines defines a significant impact as one that has a substantial, demonstrable, negative aesthetic effect.

a.-c. The proposed project involves the abandonment, in-place, of a 214-foot pipeline segment within the active surf zone of the nearshore marine environment. The pipeline segment is currently buried beneath 15 feet of sand and is encased in concrete. Based on the assessment of historical aerial photographs, field observations, survey of underlying geological conditions, and depositional studies completed in the project area, future exposure of this pipeline segment is considered unlikely. Although a 1968 pipeline exposure has been identified (see Figure 1-4, Photograph A), the exposed section located onshore was successfully removed during the Marine Terminal Decommissioning Project. In the unlikely event that the pipeline segment becomes exposed, it would not be visible due to its position underwater and would likely be rapidly re-buried through depositional trends observed at the project site.

Abandonment in-place of the pipeline segment will not introduce an element that is incompatible or affect the aesthetic integrity of the area. No impact is expected.

d. The proposed project involves the abandonment, in-place, of a 214-foot pipeline segment within the active surf zone of the nearshore marine environment and does not include any activity that will produce light or glare. No impact is expected.

2.1.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.2 AGRICULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.2.1 Setting

Agriculture plays an important role in Ventura County. The presence of high-quality soils, adequate water, favorable climate, and level topography result in prolific agricultural production in this area (Ventura County, 1992). The pipeline segment proposed for abandonment in-place is located within the active surf zone of the nearshore marine environment and is underlain by sand. According to the Soil Survey Ventura Area, California (USDA, 1970), the onshore area located directly upland from the nearshore pipeline segment is designated as Coastal Beaches. Coastal beaches have no value for farming due to their inherent infertility associated with the excessive drainage, high erosion potential, and poor water holding capability. The closest soils that are suitable for agricultural lands are located approximately one-half mile east of the project site (USDA, 1970).

2.2.2 Impact Discussion

a.-b. The project site is located within the active surf zone of the nearshore environment. As such, the project site has not been the site of past or present agricultural uses and does not contain Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or land contained within a Williamson Act contract. Considering the above, no impacts to agricultural resources resulting from the conservation of agricultural land to non-agricultural uses would result.

c. The proposed project involves abandonment, in-place, of a pipeline segment within the active surf zone of the nearshore marine environment and will not result in any impacts to agricultural lands or result in the conversion of farmland to non-agricultural uses.

2.2.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.3.1 Setting

Many factors have a potential impact on air quality, including local climate, topography, and land use. Southern California is located in a semi-permanent high-pressure zone within the Eastern Pacific Region. Marine air is a major influence in the spring, summer, and fall. Only in the winter do low-pressure weather systems originating in the northern Pacific Ocean bring clouds, wind, and rain into Southern California. The Southern California area has been divided into several geographical air basins. Ventura County is located within the South Central Coast Air Basin, which includes Ventura, Santa Barbara, and San Luis Obispo Counties. Found within this larger basin is the Oxnard Plain air shed, in which the project site is located.

The topography and climate of Ventura County combine to create an area of high air pollution potential. During the summer months, warm air masses tend to move into the area, and become established over the cool, moist marine layer. Warm air masses remain in place over the marine layer, resulting in an inversion layer, which restricts mixing of air masses. The effects of the inversion layer are combined with the effects of the surrounding mountain ranges, and light summer winds, resulting in an area of restricted air flow. Due to this restricted air flow, pollutants tend to accumulate in the lowest layer of the atmosphere, making Ventura County an area of high smog potential. In addition, Southern California receives more days of sunlight than any other urban area in the nation except for Phoenix, Arizona. Summer sunlight triggers photochemical reactions among concentrated pollutants to form ozone, which can reach high levels. Ozone levels in Ventura County exceed State and federal air quality standards a few days out of the year on average. During the autumn months, dry, hot Santa Ana winds from the east create greater air movement, resulting in lower air pollutant concentrations. However, with recent reductions in emissions, severe ozone episodes occur much less frequently in this area (Impact Sciences, 1998). During the autumn months, the dry, hot Santa Ana winds bring greater air movement, resulting in lower air pollutant and photochemical smog concentrations.

Air quality is affected by a variety of sources in the vicinity of the project site. Motor vehicles using the nearby roadways such as Harbor Boulevard and West Fifth Street are one source. Agricultural diesel and gasoline powered equipment and vehicles located to the east are another source of air emissions. Air emissions associated with the production of electricity and natural gas for use by local residential areas are significant. Finally, the onsite and neighboring facilities of Barry Petroleum Oil, Torch Operating Company, and the REM facility, are sources of air emissions.

There are several agencies responsible for monitoring and improving the air quality within the Basin, including the U.S. Environmental Protection Agency, California Air Resources Board, and Ventura County Air Pollution Control District (VCAPCD). The air quality of Ventura County is monitored by a network of air monitoring stations operated by the California Air Resources Board (ARB) and the Ventura County Air Pollution Control District (APCD). The air monitoring network includes eight stations in Ventura County. The closest station to the project site is the El Rio station, located approximately 5 miles west of the project site.

Two pollutants (ozone and PM₁₀) are of particular interest because state air quality standards for these pollutants are regularly exceeded. Table 2.3-1 lists the monitored maximum concentrations and number of exceedances of state air quality standards at the El Rio station for the years 1999 through 2002 for ozone, carbon monoxide, nitrogen dioxide, and PM₁₀. Ozone concentrations exceeded the state standard (0.09 ppm) one time (1999) and did not exceed the federal standard (0.12 ppm) during 1999-2002. Carbon monoxide and carbon dioxide concentrations did not exceed state standards during 1999-2002. PM₁₀ concentrations exceeded the state 24 hour standard for a total of 5 days during 1999-2002. The federal 24-hour PM₁₀ standard was not exceeded at the El Rio station during this period.

Table 2.3-1. Air Quality Standard Exceedances

Year	1999	2000	2001	2002
Ozone (ppm) – El Rio				
Worst Hour	0.103	0.084	0.094	0.086
Number of State Exceedances (Days > 0.09 ppm)	1	0	0	0
Number of Federal Exceedances (Days > 0.12 ppm)	0	0	0	0
Carbon Monoxide (ppm) - El Rio				
Worst 8-Hour Average	1.20	1.28	1.64	1.23
Number of State Exceedances (8 hours>9 ppm)	0	0	0	0
Nitrogen Dioxide (ppm) – El Rio				
Worst Hour	0.099	0.074	0.068	0.048
Number of State Exceedances (Hours>0.25 ppm)	0	0	0	0
PM₁₀ (micrograms/cubic meter) – El Rio				
Worst Sample	50.8	52.2	51.5	97.4
Number of State Exceedances (Samples>50)	1	1	2	2
Annual Geometric Mean (Standard is 30)	25.7	25.0	25.3	24.2
Annual Arithmetic Mean (Standard is 50)	27.8	26.9	28.2	27.8

Source: California Air Resources Board, Air Quality Summaries, 1999, 2000, 2001, and 2002

Attainment Status. Ventura County is classified as a Severe-15 non-attainment area for the Federal ozone standard, meaning the County must reduce ozone concentrations below the standard within 15 years. Based on recommendations developed by the California Air Resources Board, Ventura County will be classified as an attainment area for the Federal 8-hour ozone standard.

The Ventura County portion of the South Central Coast Air Basin has been classified as a severe non-attainment area for the State ozone standard. The South Central Coast Air Basin has been classified as in attainment for CO. Ventura County is also classified as a non-attainment area for the State PM₁₀ standards.

2.3.2 Impact Discussion

Significance Thresholds and Impact Analysis:

Thresholds of Significance. In November 2000, the Ventura County APCD adopted the *Ventura County Air Quality Assessment Guidelines* (Guidelines), which include project-specific thresholds to determine significance of air quality impacts under CEQA:

- Daily emissions exceeding 25 pounds reactive organic compounds (ROC) or oxides of nitrogen (NO_x);
- Causing an exceedance or making a substantial contribution to an exceedance of an ambient air quality standard;
- Projects inconsistent with the Ventura County AQMP and emitting greater than 2 pounds per day ROC or NO_x;
- Directly or indirectly causing the existing population to exceed the population forecasts in the most recently adopted AQMP.

According to the Guidelines, construction-related emissions of ROC and NO_x are not counted towards the significance thresholds since these emissions are only temporary. However, construction-related emissions should be mitigated if estimates of ROC and NO_x emissions from the heavy-duty construction equipment anticipated to be used for a particular project exceeds the 25 pounds per day threshold (Ventura County, 2000).

No quantitative thresholds have been established for fugitive dust (PM₁₀) generated by short-term construction activities. However, a project that may be reasonably expected to generate fugitive dust emissions in such quantities as to cause health concerns or a nuisance to the public or damage to property will have a significant adverse air quality impact. As such, fugitive dust control measures are often required and should be applied to all project-related dust generating activities such as grading and excavating (Ventura County, 2000).

Impact Analysis

a.-e. The proposed project involves the abandonment, in-place, of a 214-foot pipeline segment within the active surf zone of the nearshore marine environment. Implementation of the project will not require any construction activities and will not result in the addition of any new sources of air pollutant emissions or cause the existing population to exceed the forecasts in the AQMP. Therefore, the proposed project will have no impact on air quality.

2.3.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.4.1 Setting

MBC Applied Environmental Sciences conducted biological surveys of the Mandalay Marine Terminal project area on February 22, April 14, and April 24-25, 2000 (see Appendix C - Biological Survey of Project Area). The following setting discussion is based in part on the information gathered from these surveys.

2.4.1.1 Habitats

Beach Area. The adjacent beach area located to the east of the pipeline segment is composed of a narrow row of tall dunes that slope down gradually to a broad flat beach. According to MBC Applied Environmental Sciences, the beach vegetation is dependent on the beach topography. Directly upland from the project site, vegetation is found on the dunes, and the beach sloping up to the dunes, but is not found between the beginning of the slope and the berm. Vegetation identified onshore in the vicinity of the project site consists of an assemblage of coastal foredune and dune scrub plant species intermingled with an abundance of non-native vegetation. Coastal foredune plant communities colonize and stabilize wind formed dunes and are characterized by very low growing, wind and drought tolerant groundcovers such as beach evening primrose (*Camissonia cheiranthifolia*) and sand-verbena (*Abronia* sp.). Dune scrub is a back dune plant community characterized by low growing, drought tolerant shrubs such as bush lupine (*Lupinus* sp.) and coyote brush (*Baccharis pilularis*).

Vegetation on coastal beaches is subject to stresses associated with desiccation, poor water availability, and wind and water driven erosion of soils. The vegetation observed within the beach area is discussed in Section 2.4.1.2 - Vegetation. The plant species typically found within coastal dunes compose a unique community that supports a variety of wildlife (see Section 2.4.1.3 - Fauna for a discussion of the fauna occurring, or having the potential to occur within the beach area).

Intertidal Zone. The intertidal zone is the area within the marine environment from the high tide mark to 7 feet below the high tide mark. The intertidal zone is a dynamic environment characterized in part by daily tidal fluctuations (leading to high concentrations of sunlight, and periods of aerial exposure), and wave forces. Within the coastal region of Ventura County, all tide levels are referenced to a 0.0-foot datum of mean lower-low water level (MLLW). The mean higher-high water level (MHHW) is +5.4 feet. The maximum range of tide within any given period is approximately 10 feet. Mean tide level is +2.8 feet and the highest and lowest observed tides are +7.6 feet and -2.4 feet, respectively. Partial island sheltering is provided by the offshore Channel Islands and San Nicolas Island. However, waves reach the Ventura County coastline through the Santa Barbara Channel (west/northwest wave direction) and from south of Anacapa Island (southwest wave direction). The westerly/northwesterly swells are generated by large low-pressure systems, which develop offshore of the Pacific Northwest between the months of October and May. Conversely, low-pressure systems, which develop in the south Pacific and hurricanes off the coast of southern Mexico, produce southwesterly swells in the summer months between June and September and often contain less energy than the westerly/northwesterly swells associated with the winter season. Waves of less than 6 feet

occur about 85 percent of the time, while waves less than 2 feet occur about 58 percent of the time (i.e., summer months). Wave heights above 15 feet in height rarely occur in coastal Ventura County.

Organisms residing within the intertidal zone are typified by hardy species that are capable of withstanding stresses associated with waves and daily tidal fluxes. Areas with hard substrate (not present at the project site) within the intertidal zone (i.e., rocky intertidal) can be an area of rich species diversity and abundance. Hard substrate provides habitat structure and a permanent surface that algae and benthic and sessile organisms may attach to, which allows for the establishment of long-lived complex communities.

Sandy intertidal habitat is represented at the project site. As such, the area does not have the relatively permanent surfaces that are necessary for the establishment of the complex communities that are present where long-lived sessile algal and sessile invertebrate (e.g., mussels, barnacles, etc.) species occur. The species that do inhabit sandy beaches handle the problem of attachment by burying themselves in the sand. However, due to the obstacles (lack of permanent hard substrate, wave stress, etc.) faced by organisms residing within the sandy intertidal, few species are found there (Ricketts et al., 1968). Therefore, ecosystem complexity and subsequent species diversity within the sandy intertidal is generally less than in adjacent rocky intertidal communities. However, the sandy intertidal environment does contain a diverse array of organisms that are highly adapted to this environment, and sandy intertidal communities are an important aspect of coastal ecosystems. Organisms residing within the sandy intertidal are typified by highly mobile species that live on the surface of the sand or within the water column (e.g., crabs, fish, etc.), or by species that live entirely or in part within the substrate, and may be sessile (e.g., clams, tube worms, etc.) or free living (e.g., sand crabs, free living worms, etc.). Some sandy intertidal organisms, especially clams (e.g., pismo clams, bean clams) form communities that may be long lived (Ricketts et al., 1968) and slow to recover from storms and other catastrophic disturbances, while other sandy intertidal organisms (free living worms, sand crabs, fishes, etc.) may be quicker to recover from disturbances.

Subtidal Zone. As with the intertidal zone, subtidal areas containing hard substrate typically support a wide variety of organisms. In subtidal areas off the southern California coast where hard/rocky substrate is available, giant kelp (*Macrocystis pyrifera*) communities (i.e., kelp forests) are often present. Kelp forests are an important part of the marine ecosystem in that they provide habitat structure and substrate surfaces for many epibiotic, benthic and sessile organisms, and provide food, shelter, and nursery habitat for migratory and resident species of fish, marine mammals and invertebrates (Department of the Navy, 2000).

As noted previously, the offshore survey conducted for the project site found no hard/rocky substrate (see Appendix D - Geophysical Survey of Project Area). Substrate type ranged from hard packed sand to soft clay. Several sites had a mixture of both types of substrate. As such, there are no kelp forests or other hard substrate communities present within the project site. As with the intertidal zone, diversity and abundance of species generally decreases in areas that lack hard substrate. However, the sandy subtidal environments support communities of organisms that are adapted to, and in some cases unique to this environment,

and as such are important to marine ecosystems. Organisms typically found in sandy subtidal environments include, but are not limited to: tube worms (*Diopatra ornate*), sand dollars (*Dendraster excentricus*), and various species of crabs, sea stars, snails, bottom dwelling fishes, etc.

2.4.1.2 Vegetation

During the four survey days, a total of 18 plant species were found growing on the Mandalay Beach dunes in front of the REM. Eleven of these 18 species are native, while seven are non-native, introduced species. Six of the native species are typical of coastal dunes. Please see the following Table 2.4-1. In degraded sites (as is represented at the project site) non-native and non-dune species tend to out compete native dune plants, resulting in a floral community which is not as robust as a native dune community.

European beachgrass (an invasive non-native species) was the dominant vegetation within the onshore project area, covering 19 percent of the surveyed pipeline transect, and comprising 72 percent of the vegetated cover. Sea rocket and beach-bur covered 3 and 2 percent of the pipeline transect, respectively, while the remaining species each covered 1 percent or less of the transect. No special status species were found during the survey. However, the location of the project site within a coastal foredune area provides for the potential of special status plant species to occur. Special status plant species that have the potential to occur within the vicinity of the project area and the definitions of special status plant species are listed in Section 2.4.1.4(Special Status Species).

Table 2.4-1. Vegetation Found on the Mandalay Beach Dunes in Front of the REM

Species	Habitats Where Commonly Found	Species Native to South Coast of California	Native Species Typical of Coastal Dunes
beach evening primrose <i>Camissonia cherianthifolia</i>	sandy slopes, flats, coastal dunes		
beach morning-glory <i>Calystegia soldanella</i>	sandy seashores, coastal strand		
sand-verbena <i>Abronia umbellate</i>	disturbed sandy areas, coastal dunes and scrub		
beach-bur <i>Ambrosia chamissonis</i>	beaches, dunes		
Bermuda grass <i>Cynodon dactylon</i>	disturbed sites	Native to Africa	
California sagebrush <i>Artemisia californica</i>	coastal scrub, chaparral, foothills		
coast bush lupine <i>Lupinus arboreus</i>	coastal bluffs, dunes, or more inland		
coastal buckwheat <i>Eriogonum parvifolium</i>	dunes, seablufts		
coyote bush <i>Baccharis pilularis</i>	coastal bluffs, oak woodland		

Species	Habitats Where Commonly Found	Species Native to South Coast of California	Native Species Typical of Coastal Dunes
European beachgrass <i>Ammophila arenaria</i>	sand dunes	Native to northern Europe	
Hottentot fig <i>Carpobrotus edulis</i>	many coastal habitats, especially on sand.	Native to northern South Africa	
lotus <i>Lotus salsuginosus</i>	coastal scrub, foothill woodlands, washes, talus, deserts including mountains		
mock heather <i>Ericameria ericoides</i>	dunes, inland sandy soils		
ripgut brome <i>Bromus diandrus</i>	open, generally disturbed places, fields	Native to Europe	
salt grass <i>Distichlis spicata</i>	Salt marshes, moist, alkaline areas		
sea fig <i>Carpobrotus chilensis</i>	many coastal habitats, especially on sand.	Native to northern South Africa	
sea rocket <i>Cakile maritime</i>	beach dunes	Native to Europe	
yellow sweet clover <i>Melilotus indicus</i>	most of Northern United States	Native to Mediterranean	

Sources: MBC Applied Environmental Sciences; Hickman, 1993.

2.4.1.3 Wildlife

Non-avifauna. The occurrence of non-bird species found within the dune habitat was sparse. An accurate account of wildlife within a given area is difficult to assess without extended periods of research, trapping, and census taking. Therefore, populations are often described based on literature and the quality and extent of available habitat. Few animals were observed during the transect survey. Only an unidentified beetle and an unidentified dragonfly were observed. Neither of these species are members of the typical dune insect fauna. The domestic honeybee (*Apis mellifer*), one desert cottontail (*Sylvilagus auduboni*), and several unidentified lizards were observed during other aspects of the dune studies. In addition, no special status animal species were identified within the project area. The location of the project site within close vicinity of a coastal foredune area, provides for the potential of special status animal species to occur. Special status animal species that have the potential to occur within the vicinity of the project area and the definitions of special status animal species are listed in Section 2.4.1.4 (Special-Status Species).

Avifauna. During the avifauna surveys conducted at the site prior to decommissioning activities, the following birds were observed: sanderling (*Calidris alba*), semipalmated plover (*Charadrius semipalmatus*), willet (*Cataptrophorus semipalmatus*), whimbrel (*Numenius phaeopus*), American avocet (*Recurvirostra americana*), marbled godwit (*limosa fedoa*), American crow (*Corvus brachyrhynchos*), ring-billed gull (*Larus delawerensis*), California gull (*Larus californicus*), western gull (*Larus occidentalis*), California brown pelican (*Pelecanus occidentalis californicus*), Forster's tern (*Sterna forsteri*), Caspian tern (*Sterna caspia*), Killdeer

(*Charadrius vociferus*), and western grebe (*Aechmophorus occidentalis*). The birds observed were engaged in a variety of activities such as resting on the beach and foraging near the REM discharge channel and near shore waters.

In addition to the bird species listed above that were observed during the biological survey, bird species commonly associated with the sandy beaches of southern California have the potential to occur within the project area. These birds include, but are not limited to: curlews, gulls, grebes, scoters, loons, and various other shore birds.

Several of the bird species observed or having the potential to occur within the project site and surrounding beach habitat areas have been afforded protected status by the State and/or federal governments due to declining populations and habitats. Due to the known occurrence of nesting sites near the project site and at the Santa Barbara Channel Islands, and the potential for special status bird species to forage within the project area, special status bird species are discussed in greater detail below.

California least tern (*Sterna antillarum browni*) is designated as "Federal Endangered", "California Endangered" and "California Fully Protected". Locally, California least terns have been identified in nearby Mandalay State Beach Park, and individuals of this species have been observed foraging at the project site. California least tern is a migratory species and arrives in California breeding territories in late April. This species forages within estuaries, lagoons, and nearshore waters where small fish are abundant. Prey consists of anchovy, silver sides, and shiner surfperch. California least tern are present at nesting colonies from April through August in areas containing open, sandy or gravelly shores that are barren to sparsely vegetated, located near shallow-water feeding areas, and are relatively free of human or predatory disturbance. This species abandons nesting areas readily if disturbed. Courtship typically occurs at beaches near the nesting colonies (Zeiner et al., 1990).

Western snowy plover (*Charadrius alexandrinus nivosus*) is classified as "State Species of Special Concern" and "Federal Threatened". This subspecies of snowy plover occurs at beaches within Washington, Oregon, California, and Mexico (Baja California). Western snowy plover require sandy, gravelly, or friable soil substrate for nesting and are present at nesting sites from April through August (Zeiner et al., 1990). Nesting at historic nesting sites (coastal sandy beaches) declined due to human disturbance. Western snowy plover are preyed upon by gulls, ravens, coyotes, and skunks. This species relies on camouflage for cover, and often crouches motionless on sandy substrate (Zeiner et al., 1990). Locally, western snowy plover are known to nest on Mandalay State Beach and McGrath State Beach, with the closest nesting site occurring within approximately 600 feet south of the project site. Recent surveys of Mandalay State Beach Park that were conducted prior to and during previous decommissioning activities found several nests (all south of the project site) and observed many foraging individuals on this stretch of beach. Western snowy plover feed by gleaning insects and amphipods from the dry sand of upper beaches and may occasionally forage in wet sand for sand crabs.

Long billed curlew (*Numenius americanus*) is designated as a "California Species of Special Concern". This species is uncommon to very common along the California coast from early July to early April, and can be found in a variety of habitats including: coastal estuaries, upland herbaceous areas, and croplands. This species uses its long bill while feeding to probe into soft substrate, or to grab prey from the surface. Prey consists of mud crabs, ghost shrimp, mud shrimp, insects (larvae and adults), clams, small estuarine fish, worms, spiders, berries, crayfish, snails, small crustaceans, and occasionally nestling birds. Long-billed curlew breed within wet meadow habitat in northeastern California during the months of April to September (Zeiner, et al., 1990).

California Gull (*Larus californicus*) is designated as a "California Species of Special Concern". This species is an abundant visitor to coastal and interior lowlands during the non-breeding season (mid-August to mid-April), and may be found in a variety of local habitats including: sandy beaches, mudflats, rocky intertidal, pelagic areas, fresh and saline emergent wetlands, lakes, rivers, cropland, landfills, and open lawns within urban areas. This omnivorous species feeds on garbage, carrion, earthworms, insects (adults and larvae), brine shrimp, and young birds. This species nests in colonies at alkalai and freshwater lacustrine habitats east of the Sierra Nevada and Cascades (Zeiner, et al., 1990).

California Brown Pelican (*Pelicanus Occidentalis*) is listed as "Federal Endangered", "California Endangered", and "California Fully Protected". This species forages within estuarine, subtidal, and pelagic waters and feeds almost entirely on fish that are caught by diving from a distance of 20-40 feet above the water surface. They are common along the Southern California Coast from June to October and can be regularly seen feeding within the offshore and nearshore portions of the project site. This species breeds on the Channel Islands (Anacapa, Santa Barbara, and Santa Cruz) from March to early August. Following the breeding season, individuals leave the breeding colonies and disperse along the California and Mexico coastlines, with some small numbers visiting the Salton Sea and Colorado River Reservoirs (Zeiner, et al., 1990).

Elegant Tern (*Sterna elegans*) is listed as a "California Species of Special Concern", and may be found at coastal areas within Humboldt County and Marin County South to Baja California in Mexico. This species congregates on beaches and tideflats when not feeding, and forages primarily within shallow ocean waters beyond the surfzone. Primary prey consists of fish. This species was initially a rare and irregular post-nesting visitor to California, but numbers have been increasing since the 1950s, and large flocks can now be seen. Breeding primarily occurs within Mexico and extreme southern California. During 1959, a colony was established at San Diego Bay. This colony has persisted, and may have facilitated the species' range extension into the central coast of California (Zeiner, et al., 1990).

Marine Invertebrates. During the intertidal survey, only twelve individual organisms, representing two species, were found in 55 core samples. These twelve organisms were represented by nine sand crabs (*Emerita analoga*) and three free-living worms (*Hemipodus borealis*). Sand crabs are important as a prey source for local fish and bird species, and are taken by fishermen for use as bait. In addition to the above mentioned invertebrate species

observed at the site, Pismo clams (*Tivela stultorum*) and bean clams (*Donax gouldi*) have the potential to occur within the sandy intertidal zone. Pismo clams and bean clams are an important prey source for local fish and bird species, and are taken by fishermen.

Invertebrate species encountered during subtidal surveys include the following species: large polychaete worms (*Diopatra splendissima*), sand dollars (*Dendraster excentricus*), moon snails (*Neverita reclusiana*), and large hermit crabs (*Isocheles pilosus*).

During the subtidal biological survey, Pacific sand dollars (*Dendraster excentricus*) were the only organisms found in dense populations. Pacific sand dollar beds have been monitored for over 30 years. During this monitoring period, Pacific sand dollar beds have been extensive in the Mandalay Bay area. These disc shaped echinoderms typically occur in dense populations, only partially buried, and feed on suspended material swept by ocean currents. They move towards shore during calm conditions, and move into deeper water during rough conditions. As with many marine invertebrates, Pacific sand dollars are broadcast spawners, meaning that gametes are dispersed into the water column where fertilization and larval development take place. Upon completion of larval development, recruits settle in areas containing adequate sandy substrate. Occasional winter storms may be severe enough to disrupt the sand dollar bed structure, resulting in the removal or mortality of individual sand dollars. The elimination of existing sand dollars, however, results in open space that may be colonized by other sand dollars, tube-worms, or other benthic organisms that may take up residence within the sand.

Fish. The local area supports a wide variety of fish species. Fishes that may occur within the nearshore and offshore portions of the project site include, but are not limited to: yellowtail tuna (*Seriola dorsalis*), Pacific sardine (*Sardinops sagax caeruleus*), hagfish (*Eptatretus stoutii*), Pacific angel shark (*Squatina californica*), yellowfin croaker (*Umbrina roncadore*), white croaker (*Genyonemus linneatus*), silver surfperch (*Hyperprosopon argenteum*), barred surfperch (*Amphistichus argenteus*), California corbina (*Menticirrhus undulatus*), California grunion (*Leuresthes tenuis*), kelp bass (*Paralabrax clathratus*), barred sand bass (*Paralabrax nebulifer*), spotted sand bass (*Paralabrax maculatofasciatus*) and ocean whitefish (*Caulolatilus princeps*). However, the majority of the above mentioned fishes are most likely to occur in areas containing or near to hard-bottom habitat and kelp beds which do not occur at or near the project site. As such, the fish species most likely to occur within in the project site are limited to Pacific sardine, mackerel, northern anchovy, California grunion, sand basses, and surf perches.

During previous decommissioning activities completed at the project site, presence/absence surveys were conducted for California grunion during the California Department of Fish and Game anticipated 2002 spawning events. During these surveys, California grunion were observed attempting on numerous occasions to spawn on the beach directly upland from the project site. Although California grunion were observed on repeated occasions in abundance at the project site, they were only observed to successfully spawn in significant numbers on one occasion.

Marine Mammals. Nearly 40 of the approximately 111 marine mammals known worldwide have been recorded off the California coast. A total of 15 species of cetaceans (whales, dolphins, and porpoises) and 6 species of pinnipeds (seals and sea lions) have been observed in the Southern California Bight (SCB).

In nearshore waters, the most common cetaceans to occur are the common dolphin (*Delphinus delphis*), the Pacific white-sided dolphin (*Lagenorhynchus obliquidens*), coastal bottlenose dolphin (*Tursiops truncatus*, aka, *T. gilli*), and the California gray whale (*Eshchrichtius robustus*). Gray whales are observed during their annual migratory periods, which are generally from mid-November to mid-June.

The most common pinnipeds occurring in the Bight include the California sea lion (*Zalpus californianus*), northern fur seal (*Callorhinus uranius*), northern elephant seal (*Mirounga angustirostis*) and harbor seal (*Phoca vitulina*) (Bonnell et al., 1980).

Table 2.4-2 provides abundance estimates (U.S., Pacific, or local stocks) for the marine mammal species known to occur within the SCB and Table 2.4-3 identifies their periods of occurrence. In addition, abundance estimates are included for sea turtles that could occur within the SCB. Due to the location of the proposed project, the species with the greatest potential for occurrence at or near the project site include the common dolphin, California white-sided dolphin, coastal bottlenose dolphin, California sea lion, harbor seal, and migrating gray whales.

Table 2.4-2. Abundance Estimates for Marine Mammals and Sea Turtles

Common Name	Scientific Name	Minimum Population Estimate	Current Population Trend
Common dolphin	<i>Delphinus delphis</i>	NP	NP
Pacific white-sided dolphin	<i>Lagenorhynchus obliquidens</i>	17,475 (Pacific Stock)	No long-term trends suggested
Coastal bottlenose dolphin	<i>Tursiops truncatus</i> (= <i>T. gilli</i>)	186 (CA Coastal Stock)	Not known
California gray whale	<i>Eshchrichtius robustus</i>	24,477	Increasing
California sea lion	<i>Zalpus californianus</i>	109,854 (US Stock)	Unable to determine
Northern fur seal	<i>Callorhinus uranius</i>	848,539(2,336 - San Miguel Island Stock)	San Miguel Island Stock recovering from 1999 depletion
Northern elephant seal	<i>Mirounga angustirostis</i>	60,547 (CA Stock)	Increasing in CA, stable or decreasing in Mexico
harbor seal	<i>Phoca vitulina</i>	30,293 (CA Stock)	Increasing
California sea otter	<i>Enhydra lutris nereis</i>	2,139**	Decreasing

Common Name	Scientific Name	Minimum Population Estimate	Current Population Trend
green turtle	<i>Chelonia mydas</i>	1,000*	Increasing
Pacific olive ridley turtle	<i>Lepidochelys olivacea</i>	350,000*	Increasing
Leatherback turtle	<i>Dermochelys coriacea</i>	985*	Decreasing
Loggerhead turtle	<i>Caretta caretta</i>	1,000*	Stable

Estimates provided by National Marine Fisheries Service Website- Stock Assessment Program, 2002.

* Estimates provided by NMFS within "Our Living Oceans" (1999). Estimates are based on number of current numbers of nesting females.




** = CDFG OSPR Newsletter, Spring 2003, Issue 1, Vol. 10

NP = Information not provided by NMFS

Note: NMFS is now National Oceanic and Atmospheric Administration (NOAA) Fisheries.

Table 2.4-3. Species of Marine Mammals and Sea Turtles and Local Periods of Occurrence

Species	Month of Occurrence											
	J	F	M	A	M	J	J	A	S	O	N	D
California gray whale												
Fin whale (E)												
Minke whale												
Blue whale (E)												
Humpback whale (E)												
Common dolphin (both spp.) ⁽²⁾												
Northern right-whale dolphin												
Pacific white-sided dolphin ⁽³⁾												
Risso's dolphin												
Dall's porpoise ⁽²⁾												
Bottlenose dolphin												
Short-finned pilot whale												
California sea lion												
Northern fur seal ⁽⁴⁾												
Northern elephant seal ⁽⁵⁾												
Pacific harbor seal												
Guadalupe fur seal (T) ⁽⁶⁾												
Northern (Steller) sea lion (T) ⁽⁶⁾												
Southern sea otter ⁽⁷⁾												
Green Sea Turtle ⁽⁸⁾												
Pacific Ridley Sea Turtle ⁽⁸⁾												
Leatherback Sea Turtle ⁽⁸⁾												
Loggerhead Sea Turtle ⁽⁸⁾												

Relatively uniform distribution  Not expected to occur  More likely to occur due to seasonal distribution 

(E) Federally listed Endangered species.

(R) Rare species.

(T) Federally listed Threatened species.

(1) Where seasonal differences occur, individuals may also be found in the "off" season. Also, depending on the species, the numbers of abundant animals present in their "off" season may be greater than the numbers of less common animals in their "on" season.

(2) Winter-Spring distribution is mostly south of Pt. Conception.

(3) Spring-Summer distribution is mostly south of Pt. Conception.

(4) Only a small % occur over continental shelf (except near San Miguel rookery, May-November).

(5) Common near land during winter breeding season and spring molting season.

(6) Now very rare in area.

(7) Only nearshore (diving limit 30 m). Only small numbers south of Pt. Conception.

(8) Rarely encountered, but may be present year-round. Greatest abundance during July through September.

Sources: Dailey (1993), NMFS (2000).

2.4.1.4 Special-Status Species

For the purpose of this report, special-status species were considered to be those plant and animal taxa listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA), federal or State Species of Concern, and/or candidates for listing, and plant species listed as 1B by the California Native Plant Society (CNPS). Since marine mammals are protected under the Marine Mammal Protection Act, they will be considered rare for the purposes of this analysis.

Special-Status Plant Species. The following tables provide definitions of special-status plant species (Table 2.4-4) and identify the special status wildlife species as well as the potential to occur within the vicinity of the project site (Table 2.4-5).

Table 2.4-4. Definitions of Special-Status Plant Species

<ul style="list-style-type: none"> Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.12 for listed plants and various notices in the Federal Register for proposed species). Plants that are candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (Federal Register Vol. 62, No. 182, pp. 49397-49411, September 19, 1997). Plants that meet the definitions of rare or endangered species under the CEQA (<i>State CEQA Guidelines</i>, Section 15380). Plants considered by the CNPS to be "rare, threatened, or endangered" in California (Lists 1B and 2 in Skinner and Pavlik, 1994). Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Lists 3 and 4 in Skinner and Pavlik, 1994). Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 CCR 670.5). Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.). Plants considered sensitive by other Federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), state and local agencies or jurisdictions. Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (<i>State CEQA Guidelines</i>, Appendix G). Plants listed as "local concern" or "endemic" in Wiskowski (1988).
--

Table 2.4-5. Special-Status Plant Species in the Project Region

Common Name	Scientific Name	Status	Potential Occurrence
Salt marsh bird's-beak	<i>Cordylanthus maritimus ssp. Maritimus</i>	FE SE 1B	Low to moderate potential to occur within the near-site coastal salt marsh vegetation.
Aphanisma	<i>Aphanisma blitoides</i>	FSC 1B	Recorded approx. 7 miles northwest of the site.
Ventura marsh milk-vetch	<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>	FSC 1A	This species occurs in coyote brush scrub vegetation less than a mile from the site.
South Coast saltscale	<i>Atriplex pacifica</i>	FSC 1B	It is believed that this species no longer occurs in the region.
Late-flowering mariposa lily	<i>Calochortus weedii</i> var. <i>vestus</i>	FSC	Suitable habitat is not present on-site.

Federal	FE	=	Federally Endangered Species
	FSC	=	Federal Species of Concern
State	SE	=	State-listed Endangered Species
CNPS	1A	=	Plants presumed extinct in California
(California Native Plant Society)	1B	=	Plants rare and endangered in California and elsewhere
	4	=	Plants of limited distribution - on Watch List

Table 2.4-6. Definitions of Special-Status Wildlife Species

- 2-20

Table 2.4-7. Special-Status Wildlife Species in the Project Region

Common Name	Scientific Name	Status	Potential Occurrence
INSECTS			
Sandy beach tiger beetle	<i>Cicindela hirticollis gravida</i>	FSC	Recorded from area but not observed during site surveys.
Globose dune beetle	<i>Coelus globosus</i>	FSC	Recorded from area but not observed during site surveys.
Wandering skipper butterfly	<i>Panoquina errans</i>	FSC	Recorded from area but not observed during site surveys.
REPTILES			
San Diego horned lizard	<i>Phrynosoma coronatum blainvillei</i>	CSC/FSC	Low; species recorded from area, but none recorded during surveys and on-site habitat poor.
California horned lizard	<i>Phrynosoma coronatum frontale</i>	CSC/FSC	Low; species recorded from area, but none recorded during surveys and on-site habitat poor.
Coastal western whiptail	<i>Cnemidophorus tigris multiscutatus</i>	FSC	Low; none recorded during surveys and on-site habitat poor.
Silvery legless lizard	<i>Anniella pulchra</i>	CSC/FSC	Low; recorded from area, but on-site habitat poor.
BIRDS			
Common loon	<i>Gavia immer</i>	CSC	Moderate; could forage during migratory periods in adjacent discharge canal.
Clark's grebe	<i>Aechmophorus clarkii</i>	SA	Moderate; could forage during migratory periods in adjacent discharge canal.
Western grebe	<i>Aechmophorus occidentalis</i>	SA	Present; observed foraging in adjacent discharge channel

Special-Status Wildlife Species in the Project Region (Continued)

Common Name	Scientific Name	Status	Potential Occurrence
BIRDS (Continued)			
Brown pelican	<i>Pelecanus occidentalis</i>	CE/FE	Present; observed flying above and diving into the water.
Double-crested cormorant	<i>Phalacrocorax auritus</i>	CSC	Moderate; could forage during migratory periods in adjacent discharge canal.
Great blue heron	<i>Ardea herodias</i>	SA	Moderate; could forage during migratory periods in adjacent discharge canal.
Great egret	<i>Casmerodius albus</i>	SA	Moderate; could forage during migratory periods in adjacent discharge canal.
Snowy egret	<i>Egretta thula</i>	SA	Moderate; could forage during migratory periods in adjacent discharge canal.
Black-crowned night-heron	<i>Nycticorax nycticorax</i>	SA	Moderate; could forage during migratory periods in adjacent discharge canal.
Osprey	<i>Pandion haliaetus</i>	CSC	Moderate; could forage during migratory periods in adjacent discharge canal.
White-tailed kite	<i>Elanus leucurus</i>	CFP	Moderate; potential as occasional forager, but no suitable habitat on site to support nesting.
Northern harrier	<i>Circus cyaneus</i>	CSC	Moderate; potential as occasional forager, but no suitable habitat on site to support nesting.
Cooper's hawk	<i>Accipiter cooperii</i>	CSC	Moderate; potential as occasional forager, but no suitable habitat on site to support nesting.
Merlin	<i>Falco columbarius</i>	CSC	Low; could occur as seasonal migrant.
Peregrine falcon	<i>Falco peregrinus</i>	CE/FE	Moderate; potential as occasional forager, but no suitable habitat on site to support nesting.
Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	CSC/FT	Low; could occur as occasional forager, but no suitable habitat on site to support nesting.
Long-billed curlew	<i>Numenius americanus</i>	CSC	Moderate; could occur as occasional forager, but no suitable habitat on site to support nesting.
California gull	<i>Larus californicus</i>	CSC	Present; observed resting on the beach.
Caspian tern	<i>Sterna caspia</i>	SA	Present; observed flying above beach and water.
Elegant tern	<i>Sterna elegans</i>	CSC/FSC	High; could occur as occasional forager, but no suitable habitat on site to support breeding colony.
California least tern	<i>Sterna antillarum browni</i>	CE/FE	Moderate; could occur as occasional forager, but no suitable habitat on site to support nesting.
Loggerhead shrike	<i>Lanius ludovicianus</i>	CSC/FSC	Moderate; could occasionally forage on site.

Special-Status Wildlife Species in the Project Region (Continued)

Common Name	Scientific Name	Status	Potential Occurrence
MAMMALS			
Long-eared myotis	<i>Myotis evotis</i>	FSC	Low; could occasionally occur on site to forage.
Fringed myotis	<i>Myotis thysanodes</i>	FSC	Low; could occasionally occur on site to forage.
Long-legged myotis	<i>Myotis volans</i>	FSC	Low; could occasionally occur on site to forage.
Pale Townsend's big-eared bat	<i>Plecotus townsendii pallescens</i>	CSC/FSC	Low; could occasionally occur on site to forage.
Townsend's western big-eared bat	<i>Plecotus townsendii townsendii</i>	CSC/FSC	Low; could occasionally occur on site to forage.
Pallid bat	<i>Antrozous pallidus</i>	CSC	Low; could occasionally occur on site to forage.
San Diego black-tailed jackrabbit	<i>Lepus californicus bennettii</i>	CSC/FSC	Moderate; recorded from area, but on-site habitat poor and survey results were negative.
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>	CSC/FSC	Moderate; recorded from area, but on-site habitat poor and survey results were negative.
Gray whale	<i>Eschrichtius robustus</i>	MMPA	Moderate; observed in the vicinity of project site during migratory season.
Bottlenose dolphin	<i>Tursiops truncatus</i>	MMPA	High; observed along coast in vicinity of project site
California sea lion	<i>Zalophus californianus</i>	MMPA	High; observed along coast in vicinity of project site
Harbor seal	<i>Phoca vitulina</i>	MMPA	High; observed along coast in vicinity of project site

- Federal
- FE = Listed as an endangered species by the USFWS
 - FT = Listed as a threatened species by the USFWS
 - FSC = Federal Species of Concern; the pool of species of concern from which future candidate species may be selected.
- State
- MMPA = Protected under the Marine Mammal Protection Act
 - CE = A state of California endangered species as listed by the CDFG; data indicate the species is in serious danger of becoming extinct throughout all or a significant portion of its range.
 - CT = A state of California threatened species as listed by the CDFG; data indicates the species is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts.
 - CFP = A wildlife species that is Fully Protected by law under the California Fish and Game Code.
 - CSC = A State of California Species of Special Concern; those species that may become listed as rare, threatened, endangered, or fully protected in the near future.
 - SA = A CDFG Special Animal that falls into one or more of the following categories:
 - Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or at a critical stage in their life cycle when residing in California.
 - Population(s) in California that may be peripheral to the major portion of a taxon's range, but which are threatened with extirpation within California,
 - Taxa closely associated with a habitat that is declining in California (e.g., wetlands, riparian, old growth forest).

Of these noted species, the following, as discussed previously, have been observed transiting, foraging, or hauled out in the project area; California least tern, Western snowy plover, California brown pelican, gray whale, coastal bottlenose dolphin, California sea lion, and harbor seal.

2.4.2 Impact Discussion

The State CEQA Guidelines defines a significant biological impact as one that will substantially affect a rare or endangered species or habitat of the species, interfere with the movement of resident or migratory fish or wildlife species, or diminish habitat for fish, wildlife, or plants.

a.-f. The proposed project involves the abandonment, in-place, of a 214-foot segment of pipeline within the active surf zone of the nearshore marine environment. The project does not involve any activity that will have an adverse effect on species identified as a candidate, sensitive, or special status species. The project will not adversely effect riparian habitat, wetlands or other sensitive natural community. Additionally, the project will not interfere with the movement of fish or other wildlife species, impede the use of native nursery sites, or conflict with any plans and policies designed to conserve or protect biological resources. As such, no impacts to biological resources will result.

2.4.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 5064.5 of the CEQA Guidelines?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 5064.5 of the CEQA Guidelines?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
Would the project:				
cemeteries?				

2.5.1 Setting

Onshore. Ventura County lies within the territory of the Ventureno Chumash ethnolinguistic group. This Chumash population once numbered in the thousands with territory stretching from the Malibu area in Los Angeles County to northern San Luis Obispo County, and inland to the San Joaquin Valley. Although archeological data indicates that the Southern California coastline has been occupied for 9,000 years, the Chumash culture developed in the later portion of that time period, from 800 to 150 years before the present (Impact Sciences, 1998). This culture was considered one of the most socially and economically complex hunting and gathering groups in North America. The mouth of every drainage between Ventura and Point Conception contains evidence of Chumash villages, including cemeteries, sweathouses, and other structures. The Ventureno Chumash generally lived along the Coast of Ventura County, as well as in a vaguely defined inland area that included the Ventura River, Santa Clara River, and the Calleguas creek. The Mountain Chumash, also found in Ventura County, spoke a distinct language from that of the coastal populations.

The Ventureno Chumash were a marine oriented people, and created an ocean-going vessel made of sewn planks, called a tomol or tomolu. The tomol was used for fishing, hunting sea mammals, and carrying items for trade between the islands and the mainland. Other items used for gathering food included traps, snares, spears, tridents, harpoons, nets, fishhooks and line, and bow and arrow. Decorative and ceremonial items were made of plant materials, shell, bone, wood, stone, hides, and feathers.

The first dated records of the Chumash are from the 1542 voyage of Juan Rodriguez Cabrillo. At the time of the arrival of the Spanish, the Chumash had reached levels of population density and complexities in social organization unequalled worldwide by other non-farming groups. Traditional Chumash society was altered greatly with the onset Spanish colonization of the Ventura County Region, and the subsequent establishment of missions. The establishment of Mission San Buenaventura in 1782 was the beginning of the decline for the aboriginal period (Impact Sciences, 1998). By 1832, with the breakup of the San Buenaventura Mission, the dispersion of the Ventureno Chumash was widespread. By this time their numbers had already been severely decimated by diseases introduced to the area by Europeans. The remaining Chumash inhabitants went to work on new ranchos, took up residence around the missions, or transferred to existing villages. Many Chumash descendants remain in the area today.

Although the project area clearly lies within the area that was historically inhabited by the Ventureño Chumash, the project site is located within the active surf zone of the nearshore marine environment. There are no known or documented villages or archaeological sites located directly onshore from the project site. Archaeological sites located along the Santa Clara River mouth (located approximately two miles north of the project area) are the closest documented village locations. The Chumash "capital", at the village of Muwu, was located at Point Mugu (Impact Sciences, 1998). The village of Muwu was the center of Lulapin, one of the two known historical chiefdoms. However, there is no evidence to suggest that any Chumash activity took place on or near the proposed project site.

Offshore. Historic offshore cultural resources in the project region consist primarily of shipwrecks. The most sensitive areas for shipwrecks along the California coast occur where concentrated shipping traffic coincides with navigational hazards such as reefs, headlands, and prevailing bad weather or fog. Some sensitive areas include offshore islands, seaports, and obstructions such as Point Conception. Less sensitive areas include open sea and coastline away from established shipping routes. Shipwrecks are common along much of the Southern California coastline but especially concentrated in the Goleta, Santa Barbara, and Ventura areas. Ventura Harbor is found just a few miles north of the proposed project site. Pierpont Bay, near Ventura, contains six well-documented shipwrecks (Chambers, 1992). The wrecks occurred from 1875 (a schooner called the "Gualala") to 1929 (a steamer called the "Tritonia"). No shipwrecks have been found near Oxnard Shores, located just south of the site, most likely due to the low concentration of navigational hazards in the area.

2.5.2 Impact Discussion

a.-d. The proposed project involves the abandonment, in-place, of a 214-foot pipeline segment within the active surf zone of the nearshore environment. The project does not include any construction activities or other operations with the potential to impact historical, archaeological, or paleontological resources, nor disturb any human remains.

2.5.3 Mitigation Measures and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.6 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.6.1 Setting

Topography. The offshore topography within the vicinity of the pipeline segment is characterized by a flat sandy bottom that is interspersed by sandbars. No observable hard substrate outcroppings are present. A previous bathymetry study shows an evenly prograding sand-covered sea floor from the nearshore to the offshore. Under this top layer of coarse sand

is a more consolidated sub-bottom, which is comprised of silts and clays (Ecosystems Management Assoc., Inc., 2000).

The submarine physiography of the Ventura Basin can be characterized by two distinct areas divided by the Hueneme Canyon. The Hueneme Canyon is located approximately five miles south of the project site. Northwest of the Hueneme Canyon is a broad gently sloping sea floor and to the southeast a narrower, steeper slope. Mugu Canyon is found near the southeastern boundary of the basin. Distinct variations in bottom topography close to shore can result in irregular current patterns and variable current velocities. Examples of bottom topography variations include Hueneme and Mugu Canyons, Port of Hueneme, Channel Islands Harbor, Ventura Marina, and the mouth of the Santa Clara River.

Soils. Currently, based upon surveys conducted by Fugro West and direct diver observations during pipeline removal attempts, the seafloor surrounding the nearshore pipeline segment is composed of sandy sediments and cobble fines. This geostructural composition results in a nearshore environment that is subject to liquefaction and soil settlement conditions. As witnessed during previous pipeline removal attempts, excavating within the active surf zone is very difficult due to constant sand migration and dynamic sediment movements, especially at the depths required (15-feet) to uncover the pipeline segment

Littoral Transport. The Ventura and Santa Clara Rivers are the primary natural source of sand for Mandalay Beach and the project area. The total sand input to the Santa Barbara Littoral Cell at Mandalay Beach is estimated to be 1,230,000 yd³/yr. The longshore transport rate at Mandalay Beach is 1,250,000 yd³/yr. Mandalay Beach sustains a relatively stable shoreline position under normal and long-term conditions, but undergoes temporary beach erosion episodes with periodic occurrences of high waves (Coastal Environments, 2000).

Mandalay Beach is known for strong nearshore currents and significant longshore sand movement. The first SCE pipeline construction site survey (Coastal Environments, 2000) noted strong bottom currents toward shore. The Ventura and Santa Clara Rivers are the primary source of sand nourishment for the Ventura County shoreline. A study completed by United States Army Corps of Engineers found that the Ventura and Santa Clara Rivers provide a major sediment supply to the coastline, but that long periods with small quantities of sediment discharged from the Rivers can cause continuous sand starvation and beach erosion. Southern California undergoes wet and dry periods depending on rainfall. This precipitation has a tremendous effect of the river flows. Drought conditions have an adverse effect on the supply of beach-building sediments reaching the coast. Likewise, floods of considerable magnitude bring large amounts of sediments to the beach. It may take years for sand deposited in the River mouth deltas to reach the downcoast shoreline, depending upon wave action. The movement of coastal sand deposits is very dependent on tides and wave action.

Based upon a review of historical aerials, it appears that the Mandalay Beach area sustained slight erosion from 1933 to 1977, but has been stable with slight advancements since 1987. This phenomenon is due to variations in river discharge sand quantities due to wet and dry weather time periods (Ecosystems Management Assoc., Inc., 2000). Mandalay Beach has

historically sustained a relatively stable shoreline position under normal and long-term conditions with temporary beach erosion episodes during periodic occurrence of high waves. Specifically, although the winter profile bar in the area can experience changes due to winter storms, elevation changes in the offshore portion of the profile at water depths of 30' or greater are found to be small. Bathymetry changes over the past 67 years (1933 to 2000) at the offshore area beyond 1700-1800 ft (548 m) from the shoreline were about +/- 2 feet. Additionally, evaluation of historic aerial photographs discussed within Section 1.3.2.4 (Pipeline Condition Investigation) supports the fact that shoreline conditions have remained consistent in terms of sand cover over the past 50 years.

Based upon site reconnaissance of current site conditions during two low-tide events conducted by Padre (January 10, 2003) and SCE (January 31, 2003) during the winter season (as opposed to conditions observed during the summer survey completed by Fugro in July of 2002), even during minus tides, the pipeline segment in question was not exposed, which supports the basis that the burial depth, within a representative year, remains relatively consistent.

Faults/Groundshaking. The Oxnard Plain is located within the Transverse Range geomorphic province. It is oriented transverse to the coastal mountains and the Sierra Nevada Range in the north and the peninsular ranges in the south. The Oxnard Plain is comprised of alluvial deposits of silt, sands and gravel which extend to a depth of approximately 500 feet beneath the City. The history of alluviation is related to the Santa Clara River and its flood patterns. The project site is on the western portion of the plain, about one-half mile south of the Santa Clara River mouth. The river grades an average of 14-feet per mile across the plain. Slope of the shore between mean lower low water and the 30-foot depth contour generally ranges from 75 to 100 feet per mile (U.S. Army Corps of Engineers, 1990).

Alquist-Priolo zones are areas which have been identified by the State Division of Mines and Geology as containing significant faults or areas which could be significantly impacted through earthquake activity on a vicinity fault. No Alquist-Priolo zones exist within the City; however, because the City lies within a seismically active region, it is susceptible to several types of earth-quake related risks (City of Oxnard, 1990). The most regionally active faults are the Oak Ridge, Pitas-Point Ventura, Red Mountain, Anacapa, and Malibu Coast faults which are located within 5-10 miles of the City.

Liquefaction. Liquefaction refers to an unstable ground condition in which water saturated soils are transferred from a solid to semi-liquid state because of sudden shock or strain. According to the California Department of Conservation (Seismic Hazard Zone Report for the Oxnard Quadrangle, 2002), and City of Oxnard General Plan (November, 1990), the Site is located within an area of high liquefaction potential.

2.6.2 Impact Discussion

The State CEQA Guidelines define a significant geological impact as one that will cause substantial flooding, erosion, siltation, or expose people or structures to major geologic hazards.

a.i.-ii. There are no known active faults or Alquist-Priolo Act Special Study Zones within the project area. However, as previously discussed, the project site is located within a seismically active region; therefore, it is subject to seismically related ground shaking from earthquake events along major active regional faults.

Abandonment in-place of the subject nearshore pipeline segment would not require any work activity, and would therefore avoid any impacts associated with exposure of persons or equipment to unstable soils conditions or related hazards. CSLC established pipeline abandonment in-place criteria require a minimum pipeline burial depth of 5 feet below ground surface as well as filling the pipeline with a stabilizing material such as grout out to a distance of 15 feet below MLLW to provide long-term pipeline stability. Considering that the 214-foot pipeline section is buried beneath approximately 15 feet of sand in a depositional area of stable beach, as well as being encased with cement, the pipeline segment is already stable and no future movement of the pipeline is expected.

Based upon historic littoral movement patterns, oceanographic conditions witnessed along the pipeline segment, and presence of considerable concrete cap, it is unlikely the pipeline segment will become exposed. However, should it become exposed, this exposure would be short-term in nature, and the pipeline is located in an area (active surf zone) where impacts to the environment or to the public is unlikely. It is expected the pipeline would rapidly be re-buried and present minimal risk to public use of the nearshore area or beach. In addition, if the CSLC consents to abandon the pipeline segment in-place, an abandonment agreement between SCE and CSLC will be developed in order to address future liability concerns and responsibilities. Specifically, an action plan will be developed that addresses suggested mitigation measures and procedures that would be implemented in the unlikely event of pipeline exposure.

a.iii. The County of Ventura and the California Division of Mines and Geology has classified the project site as having a high liquefaction potential. As such, a large magnitude earthquake on any of a number of local or regional faults could cause liquefaction/settlement of the soils surrounding the 214-foot pipeline segment. However, due to the concrete encasement surrounding the pipeline, this settlement would likely cause the pipeline segment to sink during a liquefaction event and would result in additional cover of the pipeline. This would further increase the stability of the pipeline and reduce the potential of future exposure. No impact is expected.

a.iv. The adjacent onshore area is comprised of migratory sand dunes and flat coastal plain, and does not contain any steep hills, slopes, or bluffs that could be subject to an extensive landslide or mudflow threat. The offshore area is composed of hard packed sand to soft clay. No impacts are expected.

b. Abandonment in-place of a 214-foot pipeline segment would avoid construction activities that would result in the disruption of soils, and would therefore not result in erosion or impacts to seafloor sediments in the nearshore environment. In addition, as previously discussed above, the pipeline segment is covered by 15 feet of sediment and is located within a

depositional environment and is not expected to become exposed at any time in the future. No impact is expected.

c.-e. The proposed project only involves abandonment, in-place, of a 214-foot segment of pipeline; it does not involve the construction of any structures or facilities that could be damaged or result in substantial risks to life or property in the event of onsite lateral spreading, land subsidence, or soil collapse. No impact of this type would result from the project.

2.6.3 Mitigation and Residual Impacts

No mitigation, in addition to an abandonment agreement between SCE and the CSLC is necessary; residual impacts would not result.

2.7 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
would the project result in a safety hazard for people residing or working in the project area?				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.7.1 Setting

The project site is located within the active surf zone of Mandalay Beach (see Figure 1-1). Oxnard Airport is located within two miles of the project site. There are no private airstrips in the vicinity and no schools within ¼ mile of the site.

2.7.2 Impact Discussion

The State CEQA Guidelines define a significant effect on the environment as one that will create a potential public health hazard to involve the use, production or disposal of materials that pose a hazard to people, animal, or plant populations in the affected area.

a.-b. The proposed project involves abandonment, in-place, of a 214-foot pipeline segment within the active surf zone of the nearshore marine environment. The project does not involve the transport, use, or disposal of hazardous materials. The pipeline segment was pigged and flushed during decommissioning activities conducted at the site and hydrocarbon concentrations were reduced to a residual level of 11.83 parts per million which is less than the 15 parts per million threshold established by the CSLC and USCG. As such, the pipeline segment is not considered a source of hazardous materials and no impacts are expected.

c. The project site is not located within one-quarter mile of any school or proposed school. No impact will occur.

d. The project site is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5. No impact of this nature will result.

e. The proposed project is located within two miles of the Oxnard Airport. However, abandonment in-place of the pipeline segment does not include any activity with the potential to result in any impacts to airport operations, aircraft flight patterns, or safety hazards associated with airport proximity. No impacts are expected.

f. The project site is not located near a private airstrip and would not create a safety hazard. No impact will result.

g. The proposed project involves the abandonment, in-place, of a 214-foot pipeline segment within the active surf zone of the nearshore environment and does not include any activity that would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. No impacts will result.

h. The project site is located in the nearshore marine environment and is not located in a wildland area. As such, the project site is not subject to threat of fire from brush, grass or wildland fires. No impacts will result.

2.7.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.8 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.8.1 Setting

The 214-foot pipeline segment is located within the active surf zone of Mandalay Beach (see Figure 1-1). In addition to the open waters of the Pacific Ocean, the following surface water resources are located in the vicinity of the project site: Santa Clara River, Point Mugu Lagoon, Port of Hueneme, Channel Islands Harbor and connecting Mandalay Bay Canal System, McGrath Lake, and freshwater and saltwater marshes in the Ormond Beach area. Also found on the Oxnard Plain are a network of drainage sloughs which carry agricultural run-off. The Edison Canal, which conveys cooling water for the power station from Channel Islands Harbor, terminates at the intake structures to the generating facility. This water is then circulated through the generators and ultimately discharged to the Pacific Ocean via outfall structures lying on Mandalay Beach, as established in their NPDES permit. A study prepared for SCE and Reliant Energy by MBC Applied Environmental Sciences in 1999 indicates that operation of the REM has no detectable adverse effects on the beneficial uses of the receiving water. In the surfzone stations, no effects were noted in winter, while in summer water temperatures were highest and DO and pH were lowest at the discharge channel and at the two upcoast surf-zone stations. No changes were observed at any of the offshore stations, indicating that any thermal effects are restricted to the nearshore area.

Water temperatures vary throughout the year with seasonal and diurnal changes, as well as currents, meteorological conditions such as wind, air temperature, relative humidity, and cloud cover, as well as ocean waves and turbulence. A study that collected data between July 1970 and January 1973 found that surface water temperatures at nearby Ormond Beach ranged from 11.4 degrees C (52.2 degrees F) in December 1971 to 22.0 degrees C (71.6 degrees F) in

August of the same year (Coastal Environments, 2000). Between 1965 and 1971 the surface salinity at the Ventura Harbor ranged from 24.1 parts per thousand (ppt) to 33.9 ppt (Coastal Environments, 2000). The hydrogen ion concentration (pH) varied between 8.0 and 8.6 in a study conducted offshore Ormond Beach between December 1973 and September 1974. The pH of Southern California surface waters varies narrowly around a mean of approximately 8.0.

2.8.2 Impact Discussion

The State CEQA Guidelines define a significant water quality impact as one that will substantially degrade water quality, contaminate a public water supply, degrade or deplete ground water resources, interfere with ground water recharge, or cause substantial flooding, erosion, or siltation.

a. The proposed project involves abandonment, in-place, of a pipeline segment within the active surf zone of the nearshore marine environment and does not include any activity with the potential to result in violation of a water quality standard or waste discharge requirement. A pipeline pigging and flushing component was added to the Mandalay Marine Terminal Decommissioning Program to further reduce the presence of residual hydrocarbons present in the pipeline interior. Prior to the completion of the pigging and flushing operations, flushwater samples were collected from the pipeline and analyzed to confirm that the TPH concentration were present at less than the 15 ppm threshold established by the CSLC and USCG. Analytical results confirmed the flushwater sample to contain 11.83 ppm TPH. As such, the pipeline segment is not considered a potential source of hazardous materials that could result in violation of a water quality standard or waste discharge requirement. No impacts are expected.

b. The proposed project would not alter the course, flow, direction, or quality of groundwater in the area. No impact will result.

c.-d. As the subject pipeline segment is located within the active surf zone, surface runoff from upland onshore areas generally flows in a westerly direction towards the project site and into the Pacific Ocean. The proposed project does not involve the development of any new structures, alterations to site terrain, or other factors that could result in an alteration to the existing drainage pattern of the project area. Therefore, the proposed project would not result in potential impacts associated with absorption rates, drainage patterns, or surface runoff.

e. As discussed above in responses **c.-d.**, the proposed project will not alter the existing site drainage or have the potential to increase surface runoff. Therefore, implementation of the proposed project will not result in exceeding the capacity of existing or planned stormwater drainage systems and no impacts will result.

f. Abandonment in-place of the pipeline segment does not include any construction activity with the potential to degrade water quality, such as, the temporary suspension of sediments resulting from excavation, or a release of contaminated materials related to the operation of construction equipment. Considering that significant concentrations of hydrocarbons have already been removed from the pipeline interior, the proposed project does not have the potential to degrade water quality. No impacts will result.

g. The proposed project involves abandonment, in-place, of a 214-foot pipeline segment and does not include the construction or placement of any homes or structures. As such, the

proposed project would not result in the placement of homes or structures within a flood hazard area. No impact is expected.

2.8.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.9 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.9.1 Setting

The pipeline segment occupies a portion of State Lease PRC 2180.1. Being that the proposed project is located in the nearshore marine environment, there are no established city of Oxnard zoning or land use designations that apply. However, this portion of the submarine pipeline corridor is located within the city of Oxnard's designated coastal zone.

Surrounding land uses consist primarily of coastal energy facilities, including Reliant Energy Mandalay, L.L.C. (Reliant) electric generating station and Torch Mandalay Oil Processing Facility which occupy approximately 52 acres 1/8-mile directly east of the project site (Assessor's Parcel Numbers 183-02-02 and 183-02-03), and are included within the City of Oxnard's Mandalay Bay Phase IV Specific Plan area. Further east of the Reliant station is Harbor Boulevard and agricultural fields. The project site is bound to the east/north by oil related-facilities, a go-cart track, as well as McGrath State Park and McGrath Lake. Mandalay Beach and the Oxnard Shores coastal community are located south of the project area.

2.9.2 Impact Discussion

The State CEQA Guidelines define a significant land use impact as one that will conflict with adopted environmental plans and goals of the community where it is located, induce substantial growth or concentration of population, displace a large number of people, or disrupt or divide the physical arrangement of an established community.

a. The proposed project would include abandonment, in-place, of a 214-foot section of pipeline, and would not require the construction of any roads, barriers, or facilities that could potentially physically divide an existing community. No impact of this nature would result.

b-c. If the CSLC consents to abandon the pipeline segment in-place, an abandonment agreement between SCE and CSLC will be developed in order to address future liability concerns and responsibilities. Specifically, an action plan will be developed that addresses suggested procedures that would be implemented in the unlikely event of pipeline exposure. As stated within Article 5, Section 2016.5 (Pipeline Abandonment) of the CSLC General Requirements for Offshore Pipelines, a pipeline may be considered for abandonment in-place if it does not constitute a hazard to navigation, commercial fishing operations, or unduly interfere with other uses of the marine environment, and is demonstrated to pose no other environmental risk. As such, the proposed project does not have the potential to conflict with established laws, plans, and policies, and would not result in a significant impact.

2.9.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.10 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.10.1 Setting

As indicated within the Ventura County General Plan (Resources Appendix, 1992), the County contains valuable aggregate and petroleum resources. However, according to the Ventura County General Plan Goals, Policies, and Programs Resource Protection Map (1988), and the city of Oxnard General Plan (November, 1990), the project site is not located in a mineral resource area. In addition, the project site is not located within an active oil or gas field (Munger Map Book of Oil and Gas Fields, 2001). The nearest field is the West Montalvo Field located approximately 1-mile north of the project site. There are no active or abandoned oil or gas wells within ¼-mile of the project site.

2.10.2 Impact Discussion

a.-b. The Ventura County General Plan indicates that any restriction in mineral resource availability (due to land uses) may result in a significant impact. Due to the fact that the project site is not located in a mineral resource area, and is not located within the direct vicinity of an oil or gas field, no impact would result. In addition, abandonment in-place of the pipeline segment will not require the use of any energy or mineral resources. As such, the project will not result in any impacts to known mineral resources.

2.10.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.11 NOISE

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
project vicinity above levels existing without the project?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.11.1 Setting

Noise levels are measured on a logarithmic scale due to physical characteristics associated with noise transmission and reception. A doubling of noise energy normally results in a 3.0 decibel (dB) increase in noise levels. The threshold of human hearing is between 0 and 10 dBA. Because of the structure of the human auditory system, a 10 dB increase in noise is perceived as a doubling of noise. A 1- to 2-dB change in ambient noise levels is generally not perceptible to sensitive receptors.

Noise levels diminish (or attenuate) as distance from the source increases based upon an inverse square rule, but the rate of attenuation varies with the type of sound source. Sound attenuates from point sources, such as an industrial facility, at a rate of 6 dB per doubling of distance. Roads typically have an attenuation rate of 4.5 dB per doubling of distance. However, heavily traveled roads with few gaps in traffic are typically characterized as a line source with an attenuation rate of 3 dB per doubling of distance.

The duration of noise and the time period at which it occurs are important factors in determining the impact of noise on sensitive receptors. Noise is more disturbing at night than during the day and noise indices have been developed to account for the varying duration of noise events over time as well as community response to them. The Community Noise Level Equivalent (CNEL) and the Day-Night Average Level (DNL or Ldn) are such indices. These indices use time-weighted average values based on the equivalent sound level (Leq). The CNEL penalizes noise levels during the night (10 p.m. to 7 a.m.) by 10 dB to account for the increased sensitivity of people to noise during the hours when most people are expected to be

resting or sleeping. Evening noise levels (7 p.m. to 10 p.m.) are penalized 5 dB by the CNEL. Appropriately weighted hourly Leqs are then combined over a 24-hour period to result in a CNEL. The Ldn also penalizes nighttime noise levels, but does not penalize evening levels.

People are subject to a multitude of sounds in the urban environment. Many of these sounds are byproducts of necessary day-to-day activities. Excessive noise levels of 90 to 110 dBA, which are typical during jet flyovers at 1,000 feet or a diesel truck at 50 feet commonly result in letters of protest and/or community action. Excessive noise may not only be undesirable, but may also cause physical and/or psychological damage. The amount of annoyance or damage to sensitive receptors is dependent primarily upon three factors: 1) the amount and nature of the noise; 2) the amount of ambient noise present before the intruding noise; and 3) the activity of the person working or living in the noise source area.

The difficulty in relating noise exposure to public health and welfare is one of the major obstacles in determining appropriate maximum noise levels. Although there has been some dispute in the scientific community regarding the detrimental effects of noise, a number of general conclusions have been reached, including the following:

- Noise of sufficient intensity can cause irreversible hearing damage;
- Noise can produce physiological changes in humans and animals;
- Noise can interfere with speech and other communication; and
- Noise can be a major source of annoyance by disturbing sleep, rest, and relaxation.

To limit population exposure to physically and/or psychologically significant noise levels, the State of California, various county governments, and most cities in the state have established guidelines and ordinances to control noise. Policy 2.16.2.1(4) of the *Ventura County General Plan* (County of Ventura, 1997) requires that noise generators proposed to be located near noise sensitive uses incorporate control measures so that noise levels at the sensitive receptor locations do not exceed:

- Leq of 55 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 6 a.m. and 7 p.m.
- Leq of 50 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 7 p.m. and 10 p.m.
- Leq of 45 dBA or ambient noise level plus 3 dBA, whichever is greater, during any hour from 10 p.m. and 6 a.m.

In addition, Policy 2.16.2.2 of the *Ventura County General Plan* states "Discretionary development which would be impacted by noise or generate noise which cannot be reduced to meet the standards prescribed in Policy 2.16.2.1, shall be prohibited. This does not apply to noise generated during the construction phase of a project if overriding considerations are adopted by the decision-making body."

The project site is located along the Pacific Coast. The Mandalay State Beach Park and REM property is located to the north and east. Mandalay Lake is located within Mandalay State Beach Park directly to the north of the project site. There is also a go-cart track (Jim Hart Go-Cart Racing Track) located directly to the north of the REM facility, along Harbor Boulevard. Harbor Boulevard is to the east of the State Beach Park. The land located on the east side of Harbor Boulevard is predominantly agricultural. Located immediately south of the REM property line is an oil and gas processing facility operated by Torch Operating Company. The Oxnard Shores Mobil Home Park is located approximately three-quarters of a mile to the south of Torch property and project the site. The Pacific Ocean is located to the west of the site. The nearest sensitive receptors would be the residences within the Oxnard Shores Mobile home park.

Existing noise sources near the site include vehicular traffic traveling on the local roadway system, aircraft operations at the Oxnard Airport, electric power generating operations at the REM (project site), oil operations at the Torch facility, go-cart racing activities, agricultural operations in nearby areas and ocean wave activity.

Several plans and policies do exist that address noise and noise control in the area near and adjacent to the project site. These include: (1) the City of Oxnard 2020 General Plan Noise Element; (2) the State of California, Department of Environmental Health, Office of Noise Control Guidelines for noise and land use compatibility; (3) County of Ventura Airport Master Plan for Oxnard Airport; and (4) City of Oxnard and County of Ventura Joint Powers Agreement for the Oxnard Airport.

2.11.2 Impact Discussion

The State CEQA Guidelines define a significant noise impact as one that substantially increases the ambient noise levels for adjoining areas.

a.-f. The proposed project involves the abandonment, in-place, of a 214-foot pipeline segment within the active surf zone of the nearshore marine environment. The project does not include any component that will generate noise or result in an increase in ambient noise levels. No impacts will result.

2.11.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.12 Population and Housing

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.12.1 Setting

The County of Ventura is estimated to undergo continued growth through the thirty-year period from 1990-2020 (Impact Sciences, 1998). The county population is expected to grow by 38% during this thirty-year period. The city of Oxnard is expected to undergo a similar rate of growth to that of the County. According to population statistics (City of Oxnard, 2003), there are currently approximately 182,027 residents within the City, occupying a total of 48,217 housing units. It is estimated that by the year 2020 the total number of houses within the City will total 53,709 units (Impact Sciences, 1998).

The project site is located in the nearshore marine environment directly west of the REM facility. The nearest housing development is located approximately 3/4-mile south of the project site at the Oxnard shores coastal community.

2.12.2 Impact Discussion

County Guidelines for significance of impacts to housing pertain to removal of existing housing and creation of demand for housing. Short-term (18-month or less) construction worker housing demand is not considered significant because there have historically been more construction workers than construction jobs Countywide, and the work is short-term. A project that employs 30 or more full-time workers is regarded as potentially significant if the current housing market vacancy rate in the area is less than 3 percent, unless there is sufficient planned residential development to increase the vacancy rate to above 3 percent.

a. The abandonment in-place of the 214-foot pipeline segment does not include any physical activities and will not require any employees that would contribute to the local population or cumulative housing demand. Additionally, the project does not extend infrastructure into an area that is not already served. No impact will result.

b. Given that no housing is located on or adjacent to the project site, no housing would be displaced and no construction of replacement housing would be necessary. No impact will result.

c. As people would not be displaced as a result of project implementation, it would not be necessary to provide replacement housing. No impact will result.

2.12.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.13 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.13.1 Setting

The project site lies within the sphere of influence of the city of Oxnard. As such, the city of Oxnard provides most of the services. Table 2.13-1 provides a summary of the applicable public service provisions in the vicinity of the project site.

Table 2.13-1. Summary of Public Service Providers

Public Services	Provided by:
Fire protection:	The Oxnard Fire Department provides all fire protection services, as well as responding to chemical spills, injuries, and vehicle accidents. They are also responsible for managing the City's records concerning contaminated materials, Risk Management, and Prevention programs. When additional emergency assistance is required, the city of Oxnard Fire Department has mutual aid agreements with Ventura County, the city of Ventura, Port Hueneme Naval Construction Battalion, and Point Mugu Naval Air Station.
Police protection:	The city of Oxnard operates one Police Station, located near Oxnard City Hall, as well as three storefront police substations. The City is divided into four Districts, each of which contains two response beats. The beats are patrolled 24 hours a day by uniformed police officers. The project site is located in District 2, Beat 1. The goal for response time to an emergency situation is six minutes or less. The response time for a non-emergency call is ten to thirty minutes. The city of Oxnard Police Department and the County of Ventura's Sheriff Department have a mutual aid agreement in the event of additional needed assistance or quicker response time, so that whichever agency is closer would respond to an emergency situation. The California Highway Patrol and Port Hueneme Police Department also offer additional assistance on an "as needed" basis.
Schools:	The Oxnard Elementary School District provides educational services for kindergarten through eighth grade, while the Oxnard Union High School District provides senior high school education.
Parks:	The city of Oxnard Recreation Services Department manages parks within the City. There are no City-owned parks located within the vicinity of the project site (City of Oxnard website, June, 2003). State Parks manages McGrath Beach State Park located approximately 1-mile north of the project site, and Mandalay State Beach Park/Oxnard Shores public beaches located adjacent to the east and south of the project site (City of Oxnard General Plan, Open Space/Conservation Element, November, 1990).

2.13.2 Impact Discussion

The State CEQA Guidelines define a significant public services impact as one that will result in the need for new or altered government services or interfere with emergency response plans or emergency evacuation plans.

- a. Abandonment in-place of the pipeline segment would not require or increase the

demand for public services. No impact would result.

2.13.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.14 RECREATION

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.14.1 Setting

The project site is located within the nearshore marine environment, adjacent to the west of Mandalay Beach. This beach provides recreational opportunities both onshore and offshore. Onshore activities include surf fishing, walking, surfing, and swimming. Offshore activities include boat fishing, pleasure boating, jet skiing, scuba diving, and snorkeling. Surfers frequent Oxnard Shores public beach, which is located south of the project site. The project site is not a major recreational destination for beach goers because it is about a half-mile walk from the nearest public access roadway and/or parking area, and is not as convenient as other local beaches, which contain public access roadways.

Nearshore sportfishing in the area is limited to kelp beds near the mouth of Channel Islands Harbor and surf fishing from sandy beaches. Some level of surf fishing takes place along almost all areas of the coast where access can be made to the beach. Fish species taken by surf anglers at Mandalay Beach include silver surfperch, barred surfperch, yellowfin croaker, and California corbina. California grunion may be taken (by hand only) on sandy beaches between June and March. Barred surfperch, yellowfin croaker and California corbina feed largely on sand crabs and bean clams occurring in the intertidal zone. Surf fishermen along Mandalay Beach often use sand crabs as bait. There is probably very little clamming for Pismo clams at Mandalay Beach, as California Department of Fish and Game (CDFG) did not find any

Pismo clams of legal size in a survey conducted in 1990 (MBC Applied Environmental Sciences, 2000).

Offshore sportfishing also takes place on private vessels and commercial vessels, which take customers out to known fishing spots in the Santa Barbara Channel. The most abundantly caught fish are rockfish, kelp bass, sand bass, Pacific mackerel, and ocean whitefish (MBC Applied Environmental Sciences, 2000). Offshore fishing from marine vessels typically takes place around hard-bottom areas and kelp beds, where the presence of fish is greatest.

2.14.2 Impact Discussion

The CEQA Guidelines define a significant recreation impact as one that will conflict with established recreational, educational, religious, or scientific uses in the area affected.

a. The project is limited to the abandonment, in-place, of 214 feet of pipeline, and will not result any construction activities or the creation of structures that would cause an addition of persons that would increase the use of existing parks or recreational facilities in the area. As previously discussed, the alternative to abandon the pipeline segment in-place would have a slight chance of pipeline exposure due to sediment transport during severe weather conditions or events. This exposure could create a short-term hazard to the public or vessels within the nearshore environment. However, based on previous assessments of historical aerial photographs, field observations, and survey of the underlying geological conditions, this potential is extremely unlikely. The pipeline segment is located in water depths up to 10-feet, buried by over 15-feet of sediment, and located in a depositional environment. As such, the pipeline segment is not expected to become exposed, or result in any subsequent impacts to recreational activities.

b. The project is limited to the abandonment, in-place, of 214 feet of pipeline, and will not involve the construction of additional recreational facilities, improved access to any established recreational area, or residences that will generate demand for recreational facilities. No impact would result.

2.14.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.15 TRANSPORTATION/TRAFFIC

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2.15.1 Setting

The Ventura Freeway (U.S. Highway 101) and Pacific Coast Highway (State Route 1) provide regional access to the project site. Access from the site to the Ventura Freeway is provided by the Victoria Avenue interchange. The Malibu Coastline is linked to the area via the Pacific Coast Highway. Fifth Street links the site with the city of Port Hueneme.

There are two arterial roadways that could be utilized to access the project area. West Fifth Street, a two-lane east-west street stretching from the eastern boundary of the city of Oxnard to the Pacific Ocean shoreline, runs to the south of the REM facility. Harbor Boulevard is a north-south route that extends north from the Channel Islands Harbor area to the western portions of the city of Ventura. Harbor Boulevard is a 2- to 4- lane route north of Fifth Street and

a 4-lane route south of Fifth Street. Both of these roadways are identified by the city of Oxnard as City Image Corridors as well as scenic routes.

A traffic study prepared by Associated Transportation Engineers in October of 1997 found that the Harbor Boulevard/Fifth Avenue intersection had an "A" Level of Service (LOS). Level of Service is a ranking used for intersections which ranges from A to F, with A indicating very good operations to F indicating poor conditions. The city of Oxnard 2020 General Plan Circulation Element states that all intersections in the city of Oxnard are expected to operate at a minimum of a Level of Service "C", with the exception of Oxnard Boulevard, which experiences greater traffic volumes. Another measure used to determine the level of congestion that normally occurs on a public roadway is the number of Vehicle Trips per Day (VTD). According to the Ventura County Transportation Division (website, June, 2003), VTD along the roadways that could be utilized to access the project site include the following: Harbor Boulevard (north of Gonzales Road) at 17,600 vpd, and (south of Gonzales Road) at 16,200 vpd, with an am peak of approximately 1410 vpd, and a pm peak of 1600-1770 vpd. West Fifth Street, (east of Harbor Boulevard) at 5,500 vpd, with an am peak of 430 vpd and a pm peak of 500 vpd.

2.15.2 Impact Discussion

The State CEQA Guidelines define a significant traffic impact as one that causes an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system.

a-b. Abandonment, in-place, of the 214-foot pipeline segment would not require the mobilization of any equipment or persons to the project site. Thus, there is no potential to impact transportation/circulation patterns or levels of service within the area.

c. The project will not result in any impacts to air traffic. There is an unlikely potential that, in the event of exposure of the pipeline segment, short-term impacts to the circulation of nearshore watercraft may occur. However, with the exception of jet skis, watercraft do not typically operate within the active surf zone of the nearshore environment. Additionally, the area excluded in this unlikely event would be very minor as compared to the area available for boating. As such, the project would not result in a significant impact to water traffic.

d. The project would not require the construction of barriers, structures, features, or uses that could result in a traffic hazard. No impacts would result.

e. The project area does not include any public access roadways, or areas of high public use. Therefore, the project will not influence emergency access to areas with nearby public uses.

f. The project site is located within the active surf zone of the nearshore marine environment, and is not proximal to any public parking areas. As such, no impacts to existing public parking areas would result.

g. The project would not include any properties that could result in a conflict to any alternative transportation programs. No impact would result.

2.15.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.

2.16 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Would the project:	Potentially Significant Impact	Insignificant with Mitigation Incorporation	Insignificant Impact	No Impact
waste?				

2.16.1 Setting

Water. Water customers serviced by the city of Oxnard currently use approximately 21,600 acre-feet of water per year. The majority of the water (12,900 acre-feet) is purchased from the Calleguas Water District (CWD), which in turn purchases water from the Metropolitan Water District of Southern California (MWD). The City also purchases approximately 5,700 acre-feet of water from the United Water Conservation District (United) wells, and pumps approximately 3,000 acre-feet of water from City wells (City of Oxnard Threshold Guidelines, February, 1995).

Stormwater Capacity. The Ventura County Flood Control District has the authority to maintain and construct flood control facilities on the channels shown on the District's Comprehensive Plan. Oxnard is located within District Zone 2, the Santa Clara River Watershed, which includes East Ventura, El Rio, Fillmore, Oxnard, Piru, Port Hueneme, and Santa Paula.

Wastewater. The Oxnard Wastewater Treatment Plant (OWWTP) provides service to the city of Oxnard, city of Port Hueneme, the Naval Construction Battalion Station at Port Hueneme, the Point Mugu Naval Air Station, and some limited adjacent areas for approximately 225,000 persons. The current design treatment capacity of the OWWTP is 31.7 million gallons per day (mgd) (City of Oxnard, 2003). The OWWTP provides "secondary" wastewater treatment through a biofiltration process. The Oxnard Wastewater Division employees maintain the wastewater system and clean storm drains and pipelines to prevent blockages. The OWWTP considers its planned level of service as adequate to meet the needs of the Oxnard Planning Area through the year 2020.

Solid Waste. Solid waste is currently disposed of at the Del Norte Regional Recycling and Transfer Station, which is owned by the city of Oxnard and opened in 1996 after the Bailard Landfill was closed. The Del Norte Regional Recycling and Transfer Station is permitted to receive approximately 2,779 tons/day, and has a total of 16 acres available for capacity (City of Oxnard, 2003).

2.16.2 Impact Discussion

a-g. The project involves the abandonment, in-place, of a 214-foot pipeline segment. It does not require any work activities that could ultimately result in the need for onsite or offsite requirements for utilities or service systems. As such, the project would not result in any impacts.

2.16.3 Mitigation and Residual Impacts

No mitigation is necessary; residual impacts would not result.